

REMARKS

Amendments:

The claims have been amended as set forth above. Specifically:

- Claims 1-7 and 9-11 are hereby cancelled. (It is noted that claim 8 was previously cancelled.) (All cancelled claims are cancelled without prejudice to present such claims again in the future.)
- Claim 12 has been amended to place it in independent form, and to include the limitations of now-cancelled claim 11, from which claim 12 originally depended.
- Claim 15 has been amended to now depend from claim 12.
- Claims 33-36 are newly added.

Rejection of Claims Under 35 U.S.C. § 102:

Claims 1, 4, 5, and 9-14 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,717,702 to Yamauchi et al. (hereinafter, "Yamauchi").

Claims 1, 4, 5 and 9-11 have been cancelled. Accordingly, the rejection of these claims is now moot.

However, claim 4 has now been rewritten in independent form, and is now presented as new claim 34. The Applicant contends that new claim 34 is not anticipated by Yamauchi, since claim 34 contains at least one limitation not shown by Yamauchi. Specifically, claim 34 requires "a drive track supported within the scanner body and positioned adjacent to the first edge of the platen". This limitation is simply not shown in Yamauchi. In fact, Yamauchi does not show or describe a platen (or the equivalent) anywhere, and so it is impossible to determine the relationship of the drive track ("synchromesh wire 4") of Yamauchi to any "platen". In fact, as indicated by viewing Fig. 1 of Yamauchi (along with the accompanying description at Col. 3 lines 63-67) the drive track ("synchromesh wire 4") of Yamauchi is positioned between the edges of where a platen would be (in frame 11), and not "adjacent to [an] edge of the platen", as required by claim 34. Accordingly, at least for these reasons the Applicant contends that claim 34 is allowable, and therefore requests allowance of the same.

With respect to claim 12 (which has been amended to place it in independent form, and to include the limitations of now-cancelled independent claim 11, from

*Application No. 10/173,326
Docket No. 10013243-1
Response/Amendment*

1 which claim 12 originally depended), the Applicant contends that claim 12 is not
2 anticipated by Yamauchi, since claim 12 contains at least one limitation not shown
3 by Yamauchi. Specifically, claim 12 requires that “the scanner body defines an
4 inside upper surface, and wherein the drive wheel contacts the inside upper surface
5 of the scanner body.” This limitation is simply not shown in Yamauchi. More
6 specifically, referring to Figs. 1 and 2A of Yamauchi, and the accompany description
7 at Col. 3 lines 63-67, the “drive wheel” of Yamauchi (synchromesh pulley 14, Fig. 2A)
8 contacts the synchromesh wire 4 (Fig. 1) in order to drive the scanning member 15.
9 In no way does Yamauchi describe a drive wheel that “contacts the inside upper
10 surface of the scanner body”, as is required by Applicant’s claim 12.

11 Since claims 13-15 depend from claim 12, claims 13-15 are allowable for at
12 least the same reason that claim 12 is allowable. The Applicant therefore requests
13 allowance of claims 12-15.

14 Rejection of Claims Under 35 U.S.C. § 103: Yamauchi and Tiara

15 Claims 2-3 and 7 have been rejected under 35 U.S.C. 103(a) as being
16 unpatentable over Yamauchi in view of U.S. Patent No. 5,873,308 to Tiara.

17 Claims 2-3 and 7 have been cancelled. Accordingly, the rejection of these
18 claims is now moot.

19 However, claim 2 has now been rewritten in independent form, and is now
20 presented as new claim 33. The Applicant contends that new claim 33 is not
21 obvious over Yamauchi in view of Tiara, since claim 33 contains at least one
22 limitation not shown by (nor rendered obvious by) either Yamauchi or Tiara.
23 Specifically, claim 33 requires “a drive track defined on the platen”. As discussed
24 above with respect to claim 34, Yamauchi does not even show or describe a platen.
25 While Tiara shows a “support glass 50” (Figs. 1, 3 and 6-9), Tiara nowhere teaches
or suggests a “drive track” defined on the “support glass”, as is required by
Applicant’s claim 33.

Accordingly, for at least this reason the Applicant contends that new claim 33
is allowable.

With respect to claim 7 (which has now been cast in independent form as new
claim 35), the Applicant contends that claim 35 is not obvious over Yamauchi in view
of Tiara, since claim 35 contains at least one limitation not shown by (nor rendered

1 obvious by) either Yamauchi or Tiara. Specifically, claim 35 requires that, "the drive
2 wheel includes a rubberized outer portion, and the drive track has a non-smooth
3 surface to allow the rubberized outer portion of the drive wheel to engage the drive
4 track". The Applicant contends that neither Yamauchi nor Tiara teach or suggest a
5 drive wheel having "a rubberized outer portion", as is required by Applicant's
6 claim 35. Further, neither Yamauchi nor Tiara teach or suggest a drive track having
7 a "non-smooth surface to allow [a] rubberized outer portion of [a] drive wheel to
engage the drive track", as is also required by Applicant's claim 35.

8 Accordingly, for at least these reasons the Applicant contends that new
9 claim 35 is allowable.

10 Rejection of Claims Under 35 U.S.C. § 103: Yamauchi and Novak

11 Claims 16-19, 22-25, and 29-32 have been rejected under 35 U.S.C. 103(a)
12 as being unpatentable over Yamauchi in view of U.S. Patent No. 6,753,534 to Novak
13 et al. (hereinafter, "Novak"). (It is also noted that claims 15, 20 and 21 have been
14 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi in view of
15 Novak as applied to claims 16-19, 22-25, and 29-32 above, and further in view of
U.S. Patent No. 6,961,154 to Sugano.)

16 With respect to claim 16, the Examiner contends in the current office action
17 that Yamauchi teaches all the claimed elements except for a magnet-track portion in
18 proximity to the slider portion to thereby allow the light bar assembly to be driven
along the magnet-track portion, which the Examiner contends is taught by Novak.

19 The Examiner contends that one of ordinary skill in the art would have been
20 motivated to combine the teachings of Yamauchi and Novak because, "(a) it would
21 have allowed a user to shield the magnetic fields created by the moving motors or
22 other moving magnetic permeable components from the electron beam lithography
23 system; and (b) it would have allowed users to avoid a shift of the electron beam by
24 magnetic fields and cause misalignment of the pattern of the article, as discussed by
25 Novak at col. 1, line 62 through col. 2, line 5." (See the Office action of Dec. 11,
2007 at page 11, first paragraph.)

The Applicants notes that these reasons are provided in the "background"
section of Novak in order to explain deficiencies in the prior art, which are addressed
by the teachings of Novak. The Applicants submits that these reasons provided by

Application No. 10/173,326
Docket No. 10013243-1
Response/Amendment

1 Novak have absolutely no relation whatsoever to the teachings of Yamauchi, nor to
2 the Applicant's invention. That is, neither Yamauchi, nor the Applicant, mention, or
3 depend upon, anything relating to electron beams and/or shielding magnetic fields.
4 Also, neither Yamauchi nor the Applicant seek to solve any type of problem or
5 deficiency in the prior art relating to shielding electromagnetic fields and/or to
6 avoiding shift of electron beams.

7 The Applicant submits that the reasons provided by the Examiner for
8 combining the teachings of Yamauchi and Novak do not amount to the required
9 motivation to make the claimed combination, and are thus not sufficient to establish
10 a *prima facie* case of obviousness in accordance with the legal principles set forth
11 under 35 U.S.C. 103. Specifically, the Examiner "must identify specifically the
12 principle, known to one of ordinary skill, that suggests the claimed combination ...
13 [and] must explain the reasons one of ordinary skill in the art would have been
14 motivated to select the references and to combine them to render the claimed
15 invention obvious." (*In re Rouffet*, 149 F.3d 1350, 47 USPQ 2d 1453 (Fed.
Cir. 1998).) However, the Examiner has merely recited the motivation behind the
16 teachings of Novak itself, which have nothing to do with the problems addressed by
17 Yamauchi, nor with the problems addressed by the Applicant's claims.

18 The Applicant contends that a *prima facie* case of obviousness has therefore
19 not been established, and/or that the Examiner's reasoning is deficient at least
20 because there is not sufficient explanation given by the Examiner as to why one of
21 ordinary skill in the art would have been motivated to select the teachings of
22 Yamauchi and Novak and to combine them to render the claimed invention obvious.
23 The Applicant contends that claim 16 is therefore nonobvious.

24 **The Applicant further notes that at no time has the Examiner ever**
25 **addressed the above arguments regarding the lack of motivation to combine**
Novak with other references, notwithstanding that these arguments have been
presented at least twice previously. The Applicant therefore requests that, in
the event Novak is used in the future to reject any of the pending claims under
35 USC 103, the Examiner provide a response to these arguments to at least
move this issue along to resolution.

Further, the Applicant contends that Novak actually teaches away from
moving the light source (as per Yamauchi), since at Col. 4 lines 22-28 Novak states:

Application No. 10/173,326
Docket No. 10013243-1
Response/Amendment

1 Minimizing the movement of relatively heavy and bulky
2 components during exposure of the article also minimizes
3 the amount of potential vibrations that may occur as the
4 support platform is moved. These vibrations can also have a
5 negative effect on the exposure performance of the system.
6 The positional stage is designed to minimize movement of
7 such components during exposure.

8 "Heavy and bulky components" (per Novak) would likely include the scanning
9 member 15 (Fig. 1) of Yamauchi. To this end, Novak provides for using a linear
10 motor to move a work-piece in relation to a fixed light source, versus moving the light
11 source. (See Novak at Col 2 lines 51-67.) That is, Novak teaches (or at the very
12 least, suggests) making the scanning member stationary, while moving the work-
13 piece. Accordingly, one reading Yamauchi and Novak would *at most* be inclined to
14 adapt the drive mechanism of Yamauchi to the work-piece-moving apparatus of
15 Novak, versus the other way around. That is, neither Yamauchi nor Novak provide
16 any teaching, suggestion or motivation to apply the drive system of Novak to the
17 scanning system of Yamauchi, and, in fact, Novak suggests not doing this, since this
18 would result in an apparatus wherein "heavy and bulky components" are moved. Put
19 another way, upon reading Yamauchi and Novak, one of skill in the art (at the time of
20 the Applicant's invention) would (at best) be motivated to apply the drive system of
21 Yamauchi to the fixed-light-source apparatus of Novak, since Novak suggests the
22 apparent benefits of "minimizing movement" of components such as the scanning
23 apparatus. And, as can be seen, applying the drive source of Yamauchi to the
24 apparatus of Novak would not result in an apparatus according to Applicant's
25 claim 16.

Accordingly, the Applicant requests that the obviousness rejection of claim 16
be withdrawn and that claim 16 be allowed.

The Applicant notes that each of claims 17-22 depends from claim 16.
Therefore, each of claims 17-22 is nonobvious for at least the reasons that claim 16
is nonobvious as set forth herein above. Accordingly, the Applicant requests that the
obviousness rejections of each of claims 17-22 be withdrawn.

With respect to independent claims 23 and 29, the motivation to combine the
references, as provided by the Examiner, is essentially the same as that provided by
the Examiner in rejecting claim 16. As discussed herein above with respect to

*Application No. 10/173,326
Docket No. 10013243-1
Response/Amendment*

1 claim 16, the motivation to combine the references as provided by the Examiner is
2 not sufficient and/or is based upon defective reasoning. That is, the Examiner's
3 explanation of the motivation to combine the reference teachings is defective and/or
4 insufficient in view of the accepted legal standards.

5 The Applicant therefore contends that a *prima facie* case of obviousness has
6 not been established for either claim 23 or claim 29 at least because there is no
7 motivation to combine the reference teachings. The Applicant therefore requests
8 that the obviousness rejections of claims 23 and 29 be withdrawn and that claims 23
9 and 29 be allowed.

10 The Applicant notes that claims 24 and 25 depend from claim 23, and that
11 claims 30, 31, and 32 depend from claim 29. Therefore, each of claims 24, 25, 30,
12 31 and 32 are nonobvious for at least the reasons that claims 23 and 29 are
13 nonobvious, as set forth above. The Applicant therefore requests that the rejections
14 of each of claims 24, 25, 30, 31 and 32 be withdrawn and that those claims be
15 allowed.

16 In regard to claims 20 and 21, those claims depend from claim 16. Therefore,
17 each of claims 20 and 21 is nonobvious at least for the reasons that claim 16 is
18 nonobvious, as set forth herein above. Moreover, in regard to claim 21, that claim
19 contains the limitations, "a linear encoding strip... and a sensor ...configured to
20 detect the linear encoding strip."

21 The Applicant notes that the Examiner does not allege that any of the cited
22 prior art references teach these limitations. Specifically, the Examiner alleges no
23 more than that Sugano teaches "a position detecting system." That is, the Examiner
24 does not allege that Sugano teaches "a linear encoding strip... and a sensor
25 ...configured to detect the linear encoding strip" as is required by claim 21. Since
the Examiner has not alleged that the prior art references teach all of the claim
limitations, it follows that the Examiner has not established a proper *prima facie* case
of obviousness.

Even if the Examiner had alleged that Sugano teaches a linear encoding
strip... and a sensor ...configured to detect the linear encoding strip as contained in
claim 21, Sugano in fact does not teach or disclose those limitations. At most,
Sugano discloses a sensor (18) that is nothing more than a proximity sensor
configured to detect a predetermined position of the light source mechanism (8) to

1 control activation of the reading lamp (12). (Sugano, col. 7, line 45 through col. 8,
2 line 17.) This teaching of Sugano is in no way equivalent to "a linear encoding
3 strip... and a sensor ... configured to detect the linear encoding strip", as required by
4 Applicant's claim 21.

5 Thus, notwithstanding the arguments herein above with regard to claim 20,
6 the Applicant contends that claim 21 is nonobvious for the additional reason that the
7 cited prior art references, when combined, do not teach all the claim limitations, as is
8 required for a *prima facie* case of obviousness.

9 The Applicant therefore requests that the rejections of each of claims 20
10 and 21 be withdrawn and that those claims be allowed.

11 SUMMARY

12 The Applicant believes that this Response/Amendment constitutes a full and
13 complete reply to the office action mailed December 11, 2007. The Applicant further
14 believes, for at least the reasons presented herein above, that claims 12-25 and
15 29-36 are allowable, and the Applicant respectfully requests timely allowance of
16 these claims.

17 The Examiner is respectfully requested to contact the below-signed attorney if
18 the Examiner believes this will facilitate prosecution toward allowance of the claims.

19 Respectfully submitted,

20 Curtis Gregory KELSAY, Applicant

21 Date: February 11, 2008

22 By: John S. Reid
23 John S. Reid
24 Attorney and agent for Applicant
25 Reg. No. 36,369
Phone: (509) 534-5789

Application No. 10/173,326
Docket No. 10013243-1
Response/Amendment